

**REMARKS**

The Examiner is thanked for the due consideration given the application. This Amendment is being filed concurrent to a Request for Continued Examination (RCE). Claims 1, 5 and 8-23 are pending in the application. Claim 19 has been withdrawn from consideration by the Examiner. Support for the amended claim set can be found in Table 1 at page 11 of the specification and in the discussion at pages 11 and 12. No new matter is believed to be added to the application by this Amendment.

**Rejection Over Ichihara**

Claims 1, 8 and 9 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Ichihara (U.S. Patent 5,814,532). This rejection is respectfully traversed.

Ichihara pertains to a method for manufacturing a semiconductor laser. Ichihara forms “street grooves” by mechanical sawing, by a laser beam or by dry etching (column 2, lines 57-59). However, Ichihara fails to disclose the vertical planes being m-planes (1100) or a-planes (1120), such as is set forth in claim 1 of the present invention. Ichihara additionally fails to disclose the surface roughness of the cleaved facet, such as is set forth in claim 1 of the present invention.

As a result, Ichihara fails to disclose or suggest each and every element of claim 1 of the present invention. Claims depending upon claim 1 are patentable for at least the above reasons. This rejection is overcome and withdrawal thereof is respectfully requested.



### Rejections Over Oka

Claims 1, 5 and 16-18 have been rejected under 35 USC § 102(e) as being anticipated by Ota (U.S. Patent 6,411,636). Claims 8-15 have been rejected under 35 USC § 103(a) as being obvious over the single reference of Ota.

Distinctions of the invention over Ota have been placed before the Examiner in the Amendment filed March 13, 2006. For brevity, this discussion is not reproduced in full here.

Ota pertains to a nitride semiconductor laser and a method of fabricating the same. Ota discusses a method of cleaving a nitride/substrate layer system where a light beam is applied from the substrate side toward the interface between the substrate and the crystal layer, thereby forming the decomposed matter area of a nitride semiconductor (see for example col. 3, lines 1-17).

Ota fails to disclose the surface roughness of the cleaved facet, such as is set forth in claim 1 of the present invention. Ota thus fails to disclose each and every element of claim 1 of the present invention. Ota therefore fails to anticipate claim 1 of the present invention. Claims depending upon claim 1 are patentable for at least the above reasons.

At page 5, lines 6-8 of the Office Action, the Examiner admits to at least one of the failures of Ota: “Ota . . . remain silent regarding the specific power range and density of the laser beam applied during the cutting or groove forming step.” The Examiner then points to Ota at column 8, lines 23-39 (which discusses laser beam evaporation of sapphire) and asserts that it

would be obvious to one of ordinary skill in the art to optimize the laser ablation parameters to achieve the specific parameters set forth in claims 15-18. However, this passage of Ota fails to address the deficiencies of Ota in teaching or suggesting each and every element of claim 1 of the present invention (upon which claims 15-18 depend).

Further, the Examiner fails to point our where in the single reference of Oka itself lies the teaching or suggestion to achieve these parameters set forth in claims 8-15.

To establish a *prima facie* case of obviousness, “the prior art reference (or references when combined) must teach or suggest all the claim limitations.” *MPEP §2143*. In addition, if a reference needs to be modified to achieve the claimed invention “there must be a showing of a suggestion or motivation to modify the teachings of that reference to the claimed invention in order to support the obviousness conclusion.” *Sibia Neurosciences Inc. v. Cadus Pharmaceutical Corp.*, 225 F.3d 1349, 55 USPQ2d 1927 (Fed. Cir. 2000).

In this case, the Examiner has failed to point out where the teaching lies in Ota itself to achieve the parameters set forth in claims 8-15. Therefore, the teachings of the single reference of Ota fail to render claims 8-15 *prima facie* obvious. Yet further, the present invention shows unexpected results over the technology of Ota, and these unexpected results are typified by the emission bands and Raman results set forth in Figures 2-4 of the present application.

These rejections are overcome and withdrawal thereof is respectfully requested.

#### Information Disclosure Statements

The Examiner is thanked for considering the Information Disclosure Statement filed June 25, 2003 and for making the initialed PTO-1449 forms of record in the application in the Office

Action mailed September 14, 2005. The Examiner is thanked for considering the Information Disclosure Statement filed May 9, 2005 and for making the initialed PTO/SB/08 form of record in the application in the Office Action mailed September 14, 2005. The Examiner is thanked for considering the Information Disclosure Statement filed May 3, 2006 and for making the initialed PTO/SB/08 form of record in the application in the Office Action mailed May 24, 2006.

### **Foreign Priority**

The Examiner has acknowledged foreign priority and indicated that a certified copy of the priority document has been received in the Office Action mailed September 14, 2005.

### **The Drawings**

The Examiner has indicated that the drawing figures are acceptable in the Office Action mailed September 14, 2005.

### **Conclusion**

The rejections have been successfully traversed, obviated or rendered moot. No issues remain. It is believed that a full and complete response has been made to the Office Action. The Examiner is therefore respectfully requested to allow the application.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Robert E. Goozner, Ph.D. (Reg.

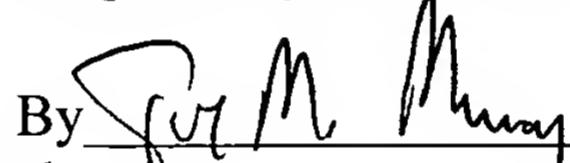
No. 42,593) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicants respectfully petition for a two (2) month extension of time for filing a reply in connection with the present application, and the required fee of \$450.00 is attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: October 24, 2006

Respectfully submitted,

By  Reg No  
32,380

James M. Slattery  
Registration No.: 28,380  
BIRCH, STEWART, KOLASCH & BIRCH, LLP  
8110 Gatehouse Road  
Suite 100 East  
P.O. Box 747  
Falls Church, Virginia 22040-0747  
(703) 205-8000  
Attorney for Applicant